



ecology and environment, inc.

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International Specialists in the Environment

MEMORANDUM

DATE: JAN. 9, 1989
TO: William Messenger, Chief Pre-Remedial Unit
FROM: Jerome D. Oskvarek, FIT Office Manager
SUBJECT: Screening Site Inspection Transmittal Memorandum
CERCLIS Site Name: NAIMAN / CARAVAN
City: BROOKPARK
State: OHIO
U.S. EPA ID No.: OHD981957913
SSID No.: NONE
TDD No.: FOS-8708-023
PAN: FOH073256

THIS DOCUMENT IS CONFIDENTIAL. Due to the predecisional nature of this memorandum, this memorandum and its attachments are not to be released. The ~~draft~~ final (circle) Screening Site Inspection (SSI) report accompanies this transmittal memorandum and its attachments. Based on the information gathered during the SSI and other available information, the FIT has recalculated the preliminary and projected HRS 1 scores, and determined the HRS 2 factor value for the site. These scores and factor values are presented below.

US EPA RECORDS CENTER REGION 5



548557

HRS 1 PRELIMINARY AND PROJECTED SCORES

PRELIMINARY HRS SCORE BASED ON THE SCREENING SITE INSPECTION (SSI)
(This score is based on information from the screening site inspection.)

$S_H = 0$

$S_{FE} = 0$

$S_{DC} = 0$

PROJECTED HRS SCORE FOR A LISTING SITE INSPECTION (LSI)
(This score is based on the expected acquisition of information from the listing site inspection.)

$S_H = 0$

$S_{FE} = 0$

$S_{DC} = 0$

HRS 1 score worksheets are attached to this memorandum.

HRS 2 FACTOR VALUE

<u>Factor</u>	<u>Factor Value</u>	<u>Observed Human Exposure (X)</u>
Waste Characteristics	17 (100)	
Air Pathway	28 (100)	
Groundwater Pathway	10 (100)	—
Surface Water Pathway	15 (100)	—
On-site Pathway	56 (100)	—
TOTAL HRS 2 FACTOR VALUE	126 (500)	

HRS 2 factor value worksheets are attached to this memorandum.

IMMEDIATE ACTION

In addition to the HRS related information, we have evaluated this site for the need for immediate removal action as a result of a substantial threat to either human health or the environment. (Select one)

The site does present a threat which requires immediate removal action.

~~_____~~

The site does not present a threat which requires immediate removal action.

RECOMMENDATIONS

Based on the HRS related information and the evaluation of the immediate removal threat, the FIT concludes from its activities the following (select one):

X

1. The HRS 1 scores are below 25.00; therefore, the site should be designated as a NFRAP facility.

2. The HRS 1 scores are equal to or exceed 25.00; however, due to extenuating circumstances (i.e., ongoing clean-up) the site should not be designated for LSI activities.

3. The HRS 1 scores are equal to or exceed 25.00. As a result, we recommend that the site be designated as a potential LSI candidate. The FIT anticipates that the following activities would be required during the LSI in order to establish a sufficient data base to successfully list the facility on the NPL.

a. Installation of monitoring wells.

b. Air sampling.

c. Further sampling of surface water.

d. Further waste characterization.

e. More extensive sampling of residential wells and municipal wells.

f. Collect additional soil samples.

g. Perform geophysics.

h. Conduct area survey.

i. Other: _____

COMMENTS

The FIT would like to make the following additional comments concerning the site.

1. None

2. _____

3. _____

4. _____

5. _____

0606:4

SCREENING SITE INSPECTION
PRELIMINARY AND PROJECTED
HAZARD RANKING SYSTEM
REVISED SCORE WORKSHEETS

Site Name: NAIMAN / CARAYAN (Cerclis Name)

(a.k.a.)
Address: 6410 #6427 EASTLAND ROAD
City/County/State/Zip: BROOK PARK / CUYAHOGA / OHIO / 44142
Cerclis ID: OHD981957913 SS ID: —
Prepared by: DIRK KAISER, E&E Date: 7/20/88
Reviewed by: _____, E&E Date: _____
TDD: FOS-8708-023 PAN: FOH07325A

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE

$S_M =$ 0 $S_{FE} =$ 0 $S_{DC} =$ 0

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE

$S_M =$ 0 $S_{FE} =$ 0 $S_{DC} =$ 0

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE

(This score is based on information from the SSI.)

	s	s ²
Groundwater Route (S _{gw} =)	0	0
Surface Water Route (S _{sw} =)	0	0
Air Route (S _a =)	0	0
S _{gw} ² + S _{sw} ² + S _a ²		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		0

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE

(This score is based on the expected acquisition of information from the LSI.)

	s	s ²
Groundwater Route (S _{gw} =)	0	0
Surface Water Route (S _{sw} =)	0	0
Air Route (S _a =)	0	0
S _{gw} ² + S _{sw} ² + S _a ²		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2}$		0
$\sqrt{S_{gw}^2 + S_{sw}^2 + S_a^2} / 1.73 = S_M =$		0

GROUNDWATER ROUTE

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE																																									
(This score is based on information from the SSI.)																																									
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #																																				
[1] Observed Release	<u>0</u> 45	x1	<u>0</u>																																						
If Observed Release scores 45 proceed to line <u>4</u> If Observed Release scores 0 proceed to line <u>2</u>																																									
[2] Route Characteristics				Aquifer Description:																																					
Depth to Aquifer of concern	0 1 2 <u>3</u>	x2	<u>6</u>	2 ft.	1																																				
Net Precipitation	0 <u>1</u> 2 3	x1	<u>1</u>	Precip. 5" NET Evap.	2																																				
Permeability of the Unsaturated Zone	0 <u>1</u> 2 3	x1	<u>1</u>	10 ⁻⁶ cm/sec	1																																				
Physical State	0 <u>1</u> 2 3	x1	<u>1</u>	Solid	1																																				
Total Route Characteristics Score			<u>9</u>																																						
[3] Containment	0 1 2 <u>3</u>	x1	<u>3</u>	UNLINED	1																																				
[4] Waste Characteristics																																									
Persistence	0 1 2 3																																								
Toxicity	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>3</td><td>6</td><td>9</td><td>12</td></tr> <tr><td>2</td><td>6</td><td>9</td><td>12</td><td>15</td></tr> <tr><td>3</td><td>9</td><td>12</td><td>15</td><td><u>18</u></td></tr> </table>	0	0	0	0	0	1	3	6	9	12	2	6	9	12	15	3	9	12	15	<u>18</u>	x1	<u>18</u>	LAB DATA	1																
0	0	0	0	0																																					
1	3	6	9	12																																					
2	6	9	12	15																																					
3	9	12	15	<u>18</u>																																					
Haz. Waste Quantity	0 <u>1</u> 2 3 4 5 6 7 8	x1	<u>1</u>	UNKNOWN																																					
Total Waste Characteristics Score			<u>19</u>																																						
[5] Targets																																									
Groundwater Use	<u>0</u> 1 2 3	x3	<u>0</u>																																						
Distance to Nearest Well	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td>0</td><td><u>0</u></td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> <tr><td>2</td><td>0</td><td>8</td><td>12</td><td>16</td><td>20</td></tr> <tr><td>3</td><td>0</td><td>12</td><td>18</td><td>24</td><td>30</td></tr> <tr><td>4</td><td>0</td><td>16</td><td>24</td><td>32</td><td>35</td></tr> <tr><td>5</td><td>0</td><td>20</td><td>30</td><td>35</td><td>40</td></tr> </table>	0	<u>0</u>	0	0	0	0	1	0	4	6	8	10	2	0	8	12	16	20	3	0	12	18	24	30	4	0	16	24	32	35	5	0	20	30	35	40				
0	<u>0</u>	0	0	0	0																																				
1	0	4	6	8	10																																				
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3	0	12	18	24	30																																				
4	0	16	24	32	35																																				
5	0	20	30	35	40																																				
Population Served	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>0</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> <tr><td>2</td><td>0</td><td>8</td><td>12</td><td>16</td><td>20</td></tr> <tr><td>3</td><td>0</td><td>12</td><td>18</td><td>24</td><td>30</td></tr> <tr><td>4</td><td>0</td><td>16</td><td>24</td><td>32</td><td>35</td></tr> <tr><td>5</td><td>0</td><td>20</td><td>30</td><td>35</td><td>40</td></tr> </table>	0	0	0	0	0	0	1	0	4	6	8	10	2	0	8	12	16	20	3	0	12	18	24	30	4	0	16	24	32	35	5	0	20	30	35	40	x1	<u>0</u>		
0	0	0	0	0	0																																				
1	0	4	6	8	10																																				
2	0	8	12	16	20																																				
3	0	12	18	24	30																																				
4	0	16	24	32	35																																				
5	0	20	30	35	40																																				
Total Targets Score			<u>0</u>																																						
[6] If line <u>1</u> is 45, multiply <u>1</u> x <u>4</u> x <u>5</u> If line <u>1</u> is 0, multiply <u>2</u> x <u>3</u> x <u>4</u> x <u>5</u>			<u>0</u>																																						
[7] Divide line <u>6</u> by 57,330 and multiply by 100			$S_{gw} = \underline{0}$																																						

GROUNDWATER ROUTE

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE					
(This score is based on the expected acquisition of information from the LSI)					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #
1 Observed Release	0 45	x1	0		
If Observed Release scores 45 proceed to line 4 If Observed Release scores 0 proceed to line 2					
2 Route Characteristics				Aquifer Description:	
Depth to Aquifer of concern	0 1 2 3	x2	6	2 ft.	1
Net Precipitation	0 1 2 3	x1	1	Precip. 5" NOT Evap.	2
Permeability of the Unsaturated Zone	0 1 2 3	x1	1	10 ⁻⁶ cm/sec	1
Physical State	0 1 2 3	x1	1	SOLID	1
Total Route Characteristics Score			9		
3 Containment	0 1 2 3	x1	3	UNLINED	1
4 Waste Characteristics					
Persistence	0 1 2 3				
Toxicity	0 1 2 3	x1	18	LAB DATA	1
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1	1	UNKNOWN	
Total Waste Characteristics Score			19		
5 Targets					
Groundwater Use	0 1 2 3	x3	0		
Distance to Nearest Well	0 1 2 3 4				
Population Served	0 1 2 3 4 5	x1	0		
Total Targets Score			0		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0		
7 Divide line 6 by 57,330 and multiply by 100			S _{gw} = 0		

SURFACE WATER ROUTE

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE																																			
(This score is based on information from the SSI.)																																			
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #																														
1 Observed Release	<u>0</u> 45	x1	<u>0</u>																																
If Observed Release scores 45 proceed to line 4																																			
If Observed Release scores 0 proceed to line 2																																			
2 Route Characteristics	Intervening Terrain <div style="display: flex; align-items: center;"> <div style="margin-right: 10px;">Facility</div> <table border="1" style="font-size: small;"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>3</td></tr> <tr><td>0</td><td>1</td><td>1</td><td>2</td><td>3</td></tr> <tr><td>0</td><td>1</td><td>2</td><td>2</td><td>3</td></tr> <tr><td>0</td><td>2</td><td>2</td><td>3</td><td>3</td></tr> <tr><td>0</td><td>2</td><td>3</td><td>3</td><td><u>3</u></td></tr> </table> </div>	0	0	0	0	3	0	1	1	2	3	0	1	2	2	3	0	2	2	3	3	0	2	3	3	<u>3</u>	x1	<u>3</u>	ADJACENT TO Facil % SURFACE H2O	<u>1</u>					
0	0	0	0	3																															
0	1	1	2	3																															
0	1	2	2	3																															
0	2	2	3	3																															
0	2	3	3	<u>3</u>																															
	Slope			Interv %																															
1-yr. 24 hr Rainfall	0 <u>1</u> <u>2</u> 3	x1	<u>2</u>	<u>2.2</u> in.	<u>2</u>																														
Distance to Nearest Surface Water	0 1 <u>2</u> <u>3</u>	x2	<u>6</u>	ADJACENT TO SW	<u>1</u>																														
Physical State	0 <u>1</u> 2 3	x1	<u>1</u>	SOLID	<u>1</u>																														
Total Route Characteristics Score			<u>12</u>																																
3 Containment	<u>0</u> 1 2 3	x1	<u>0</u>	CLAY CAPPED	<u>1</u>																														
4 Waste Characteristics	Persistence 0 1 2 3 Toxicity <table border="1" style="font-size: small;"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>1</td><td>3</td><td>6</td><td>9</td><td>12</td></tr> <tr><td>2</td><td>6</td><td>9</td><td>12</td><td>15</td></tr> <tr><td>3</td><td>9</td><td>12</td><td>15</td><td><u>18</u></td></tr> </table> Haz. Waste Quantity 0 <u>1</u> 2 3 4 5 6 7 8	0	0	0	0	0	1	3	6	9	12	2	6	9	12	15	3	9	12	15	<u>18</u>	x1	<u>18</u>	LAB DATA	<u>1</u>										
0	0	0	0	0																															
1	3	6	9	12																															
2	6	9	12	15																															
3	9	12	15	<u>18</u>																															
		x1	<u>1</u>	UNKNOWN																															
Total Waste Characteristics Score			<u>19</u>																																
5 Targets	Surface Water Use <u>0</u> 1 2 3 Dist. to Sensitive Environment <u>0</u> <u>1</u> 2 3 Distance to Water Intake Downstream Population Served <table border="1" style="font-size: small;"> <tr><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr> <tr><td>0</td><td>4</td><td>6</td><td>8</td><td>10</td></tr> <tr><td>0</td><td>8</td><td>12</td><td>16</td><td>20</td></tr> <tr><td>0</td><td>12</td><td>18</td><td>24</td><td>30</td></tr> <tr><td>0</td><td>16</td><td>24</td><td>32</td><td>35</td></tr> <tr><td>0</td><td>20</td><td>30</td><td>35</td><td>40</td></tr> </table>	0	0	0	0	0	0	4	6	8	10	0	8	12	16	20	0	12	18	24	30	0	16	24	32	35	0	20	30	35	40	x3	<u>0</u>	RECREATION	<u>1</u>
0	0	0	0	0																															
0	4	6	8	10																															
0	8	12	16	20																															
0	12	18	24	30																															
0	16	24	32	35																															
0	20	30	35	40																															
		x2	<u>2</u>																																
		x1	<u>0</u>	NO INTAKES																															
Total Targets Score			<u>8</u>																																
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			<u>0</u>																																
7 Divide line 6 by 64,350 and multiply by 100			$S_{sw} = $ <u>0</u>																																

SURFACE WATER ROUTE

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE					
(This score is based on the expected acquisition of information from the LSI.)					
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Description	Ref. #
1 Observed Release	0 45	x1	0		
If Observed Release scores 45 proceed to line 4					
If Observed Release scores 0 proceed to line 2					
2 Route Characteristics	Intervening Terrain Facility Slope 1-yr. 24 hr Rainfall Distance to Nearest Surface Water Physical State	0 0 0 0 3 0 1 1 2 3 0 1 2 2 3 0 2 2 3 3 0 2 3 3 3 0 1 2 3 0 1 2 3 0 1 2 3	x1 x1 x2 x1	3 2 6 1	ADJACENT TO Facil % SURFACE WATER Interv % 2.2 in. ADJACENT TO SW Solid
Total Route Characteristics Score			12		
3 Containment	0 1 2 3	x1	0	CLAY CAPPED	1
4 Waste Characteristics	Persistence Toxicity Haz. Waste Quantity	0 1 2 3 0 0 0 0 1 3 6 9 12 2 6 9 12 15 3 9 12 15 18 0 1 2 3 4 5 6 7 8	x1 x1 x1	18 1	LOG DATA UNKNOWN
Total Waste Characteristics Score			19		
5 Targets	Surface Water Use Dist. to Sensitive Environment Population Served	0 1 2 3 0 1 2 3 Distance to Water Intake Downstream 0 0 0 0 0 0 4 6 8 10 0 8 12 16 20 0 12 18 24 30 0 16 24 32 35 0 20 30 35 40	x3 x2 x1	0 2 0	RECREATION WETLANDS NO INTAKES
Total Targets Score			8		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5			0		
7 Divide line 6 by 64,350 and multiply by 100			S _{sw} = 0		

AIR ROUTE

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE					
(This score is based on information from the SSI.)					
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Description	Ref. #
1 Observed Release	0 45	x1			
If line 1 is 0, the $S_a = 0$. Enter on line 5 If line 1 is 45, then proceed to line 2					
2 Waste Characteristics					
Reactivity & Incompatability	0 1 2 3	x1			
Toxicity	0 1 2 3	x3			
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1			
Total Waste Characteristics Score					
3 Targets	Dist to Population 0 0 0 0 9 12 15 18 12 15 18 21 15 18 21 24 18 21 24 27 21 24 27 30 Pop.				
Population within 4-mile Radius		x1			
Distance to Sensitive Environment	0 1 2 3	x2			
Land Use	0 1 2 3	x1			
Total Targets Score					
4 Multiply 1 x 2 x 3					
5 Divide line 4 by 35,100 and multiply by 100			$S_2 = 0$		

THE SITE IS SECURELY COVERED WITH AN INTACT CLAY CAP.

AIR ROUTE

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE :					
(This score is based on the expected acquisition of information from the LSI.)					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #
1 Observed Release	0 45	x1			
If line 1 is 0, the $S_a = 0$. Enter on line 5 If line 1 is 45, then proceed to line 2					
2 Waste Characteristics					
Reactivity & Incompatability	0 1 2 3	x1			
Toxicity	0 1 2 3	x3			
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1			
Total Waste Characteristics Score					
3 Targets	Dist to Population				
Population within 4-mile Radius	Pop.	0 0 0 0 9 12 15 18 12 15 18 21 15 18 21 24 18 21 24 27 21 24 27 30	x1		
Distance to Sensitive Environment	0 1 2 3	x2			
Land Use	0 1 2 3	x1			
Total Targets Score					
4 Multiply 1 x 2 x 3					
5 Divide line 4 by 35,100 and multiply by 100			$S_a = 0$		

THE SITE IS SECURELY COVERED WITH AN INTACT CLAY CAP.

FIRE AND EXPLOSION

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE						
(This score is based on information from the SSL)						
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #	
1 Containment	0 3	x1				
2 Waste Characteristics						
Direct Evidence	0 3	x1				
Ignitability	0 1 2 3	x1				
Reactivity	0 1 2 3	x1				
Incompatability	0 1 2 3	x1				
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1				
Total Waste Characteristics Score						
3 Targets						
Dist. to Nearest Pop.	0 1 2 3 4 5	x1				
Dist. to Nearest Bldg.	0 1 2 3	x1				
Dist. to Sensitive Env.	0 1 2 3	x1				
Land Use	0 1 2 3	x1				
Pop. Within 2 miles	0 1 2 3 4 5	x1				
Bldgs. Within 2 miles	0 1 2 3 4 5	x1				
Total Targets Score						
4 Multiply 1 x 2 x 3						
5 Divide line 4 by 1,440 and multiply by 100				$S_{FE} = 0$		

ACCORDING TO SAFETY MONITORING EQUIPMENT AND A LOCAL FIRE OFFICAL; THE SITE POSSES NO FIRE OR EXPLOSION THREAT.

FIRE AND EXPLOSION

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE						
(This score is based on the expected acquisition of information from the LSI.)						
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Description	Ref. #	
1 Containment	0 3	x1				
2 Waste Characteristics						
Direct Evidence	0 3	x1				
Ignitability	0 1 2 3	x1				
Reactivity	0 1 2 3	x1				
Incompatability	0 1 2 3	x1				
Haz. Waste Quantity	0 1 2 3 4 5 6 7 8	x1				
Total Waste Characteristics Score						
3 Targets						
Dist. to Nearest Pop.	0 1 2 3 4 5	x1				
Dist. to Nearest Bldg.	0 1 2 3	x1				
Dist. to Sensitive Env.	0 1 2 3	x1				
Land Use	0 1 2 3	x1				
Pop. Within 2 miles	0 1 2 3 4 5	x1				
Bldgs. Within 2 miles	0 1 2 3 4 5	x1				
Total Targets Score						
4 Multiply 1 x 2 x 3						
5 Divide line 4 by 1,440 and multiply by 100 $S_{FE} =$						

ACCORDING TO SAFETY MONITORING EQUIPMENT AND A LOCAL FIRE OFFICER, THE SITE POSSES NO FIRE OR EXPLOSION THREAT.

DIRECT CONTACT

SCREENING SITE INSPECTION (SSI) PRELIMINARY HRS SCORE					
(This score is based on information from the SSI.)					
Rating Factor	Assigned Value (Circle One)	Multi- plier	Score	Description	Ref. #
[1] Observed Incident	0 45	x1	0		
If line [1] is 45, proceed to line [4] If line [1] is 0, proceed to line [2]					
[2] Accessibility	1 2 ③	x1	3	No Fence	1
[3] Containment	① 15	x1	0	Clay Cap	1
[4] Waste Characteristics					
Toxicity	0 1 2 ③	x5	15	LAB DATA	1
[5] Targets					
Pop. Within 1 mile	0 1 2 3 4 ⑤	x4	20	~ 14,100	1
Dist. to Crit. Habitat	① 1 2 3	x4	0		
Total Targets Score			20		
[6] If line [1] is 45, multiply [1] x [4] x [5] If line [1] is 0, multiply [2] x [3] x [4] x [5]			0		
[7] Divide line [6] by 21,600 and multiply by 100 $S_{DC} = 0$					

DIRECT CONTACT

LISTING SITE INSPECTION (LSI) PROJECTED HRS SCORE					
(This score is based on the expected acquisition of information from the LSI.)					
Rating Factor	Assigned Value (Circle One)	Multi-plier	Score	Description	Ref. #
1 Observed Incident	0 45	x1	0		
If line 1 is 45, proceed to line 4 If line 1 is 0, proceed to line 2					
2 Accessibility	0 1 2 3	x1	3	No Faxe	1
3 Containment	0 15	x1	0	CLAY Cnp	1
4 Waste Characteristics					
Toxicity	0 1 2 3	x5	15	Lab Data	1
5 Targets					
Pop. Within 1 mile	0 1 2 3 4 5	x4	20	N 14,100	1
Dist. to Crit. Habitat	0 1 2 3	x4	0		
Total Targets Score			20		
6 If line 1 is 45, multiply 1 x 4 x 5 If line 1 is 0, multiply 2 x 3 x 4 x 5				0	
7 Divide line 6 by 21,600 and multiply by 100 $S_{DC} = 0$					

HRS 2 FACTOR VALUE SUMMARY SHEET

<u>Factor</u>	<u>Factor Value</u>	<u>Observed Human Exposure (X)</u>
Waste Characteristics	<u>17</u> (100)	
Air Pathway	<u>28</u> (100)	
Groundwater Pathway	<u>10</u> (100)	<u>—</u>
Surface Water Pathway	<u>15</u> (100)	<u>—</u>
On-site Pathway	<u>56</u> (100)	<u>—</u>
TOTAL HRS 2 FACTOR VALUE	<u>126</u> (500)	
0606:4		

WASTE CHARACTERISTICS

	<u>Yes</u> (x)	<u>Reference</u>	<u>Factor</u> <u>Value</u>
1. (a) Are CONTAINERS open, unsealed, or non-intact?	—	—	<u>0</u> (5)
(b) Is there evidence of contaminant migration away from the containers?	—	—	<u>0</u> (5)
(c) Is the source(s) unlined or does it have unsound diking?	—	—	<u>0</u> (5)
2. (a) Does the LANDFILL have exposed waste, <u>or</u> is the landfill uncovered, <u>or</u> is the landfill covered with contaminated soil, non-intact cover or cover less than 1 inch?	—	—	<u>0</u> (5)
(b) Is there evidence of contaminant migration away from the source?	—	—	<u>0</u> (5)
(c) Is there an absence of a liner, a run-on or runoff management system or leachate collection and removal system?	<u>X</u>	—	<u>5</u> (5)
3. (a) Is the SURFACE IMPOUNDMENT wet and non-enclosed?	—	—	<u>0</u> (5)
(b) Is there evidence of contaminant migration away from the source?	—	—	<u>0</u> (5)
(c) Is there no liner or diking?	—	—	<u>0</u> (5)
4. (a) Is the PILE uncovered, or is the pile covered with contaminated soil, non-intact cover or cover less than 1 inch?	—	—	<u>0</u> (5)
(b) Is there an absence of a functioning run-on or runoff management system or leachate collection system?	—	—	<u>0</u> (5)
(c) Is there an absence of a liner?	—	—	<u>0</u> (5)
5. Only answer <u>highest</u> factor value for the following questions:			
(a) Is constituent data available for waste?	<u>X</u>	<u>1</u>	<u>10</u> (10)
(b) Is waste quantity as deposited information available?	—	—	<u>0</u> (8)
(c) Is disposal volume known?	—	—	<u>0</u> (4)
(d) Is disposal area known?	—	—	<u>0</u> (2)

...Continued

WASTE CHARACTERISTICS (Continued)

6. Complete the table for all sources at the site. Calculate Waste Quantity score and record summation to a maximum value of 30.

Source	Surface Area (ft ²)	÷	Divisor	=	Waste Quantity Score
Pile	4	÷	85	=	
Drums/Non-drum Container		÷	233	=	
Surface Impoundment		÷	375	=	
Land Treatment		÷	27,000	=	
Landfill	174240	÷	85,666	=	2.03
Contaminated Soil		÷	1,125,000	=	

Total 2.0 (30max)

Total Waste Characteristics 17 (100)

AIR PATHWAY

- | | <u>Yes</u>
(x) | <u>Reference</u> | <u>Factor</u>
<u>Value</u> |
|--|-------------------|------------------|-------------------------------|
| 1. Only assign factor value for (a) or (b), choosing the <u>higher</u> value: | | | |
| (a) Is there a residence or regularly occupied building between 0 to 1/8 mile from a potential source(s)? | X | 1 | 25 (25) |
| (b) Is there a residence or regularly occupied building between 1/8 to 2 miles from a potential source(s)? | | | 0 (5) |
| 2. Complete (a) and (b) and assign the <u>higher</u> factor value: | | | |
| (a) If documented contamination of air, answer yes and assign factor value of 75. | | | 0 (75) |
| (b) Calculate potential population and assign factor value as given below: | | | |

Distance (mile)	Population	x	Distance Weighting Factor	=	Subtotal
Onsite	0	x	1.682	=	0
0-1/4	225	x	0.323	=	73
1/4-1/2	279	x	0.056	=	16
1/2-1	2186	x	0.017	=	37
1-2	7503	x	0.005	=	33
2-3	15276	x	0.003	=	46
3-4	38711	x	0.002	=	77

Total 287 x $\frac{1}{100}$ = 3 (75max)

Total Air Pathway Value 28 (100)

GROUNDWATER PATHWAY

- | | <u>Yes</u>
(x) | <u>Reference</u> | <u>Factor</u>
<u>Value</u> |
|--|-------------------|------------------|-------------------------------|
| 1. Is the depth to the aquifer of concern less than 800 feet? | <u>X</u> | <u>1</u> | <u>5</u> (5) |
| 2. (a) Within 2 miles of the site, is the geologic material between the waste and the aquifer of concern composed predominantly of sands, gravels, sandstone, limestone or dolomite? | <u>X</u> | <u>1</u> | <u>5</u> (5) |
| (b) Within 2 miles of the site, is there evidence of a low hydraulic conductivity layer (10^{-6} to 10^{-9}) between the waste and the aquifer of concern? | _____ | _____ | <u>0</u> (-15) |
| 3. Only assign factor value for (a) or (b), choosing the <u>higher</u> value: | | | |
| (a) Is there a drinking water well(s) in the aquifer of concern or a more shallow unit 0 to 1/2 mile from the source(s)? | _____ | _____ | <u>0</u> (20) |
| (b) Is there a drinking water well(s) in the aquifer of concern or a more shallow unit 1/2 to 2 miles from the source(s)? | _____ | _____ | <u>0</u> (5) |
| 4. Is the aquifer of concern a karst unit? | _____ | _____ | <u>0</u> (10) |
| 5. Is the aquifer of concern a sole source aquifer? | _____ | _____ | <u>0</u> (5) |
| 6. Complete (a) and (b), and assign the <u>higher</u> factor value: | | | |
| (a) If documented contamination of drinking water wells with TCL/TAL compounds, answer yes and assign a factor value of 50. | _____ | _____ | <u>0</u> (50) |
| (b) Calculate potential population and assign factor value as given below: | _____ | _____ | |

POPULATION USES SURFACE WATER FOR DRINKING

Distance (mile)	Population	x	Distance Weighting Factor	=	Subtotal
0-1/4		x	0.25	=	
1/4-1/2		x	0.16	=	
1/2-1		x	0.08	=	
1-2		x	0.05	=	
2-3		x	0.03	=	
3-4		x	0.02	=	

Total 0 x 1 = 0 (50max)

SURFACE WATER PATHWAY

	<u>Yes</u> (x)	<u>Reference</u>	<u>Factor</u> <u>Value</u>
1. Does site lie within a 100-year or less floodplain?	<u>X</u>	<u>1</u>	<u>5</u> (5)
2. Is there contamination attributable to the site at a drinking water intake?	<u> </u>	<u> </u>	<u>0</u> (20)
3. Is this a sole-source surface water supply?	<u> </u>	<u> </u>	<u>0</u> (10)
4. Is a fishery (production) contaminated as a result of the site, or is a fishery potentially impacted within 15 miles as a result of the site?	<u> </u>	<u> </u>	<u>0</u> (5)
5. Is a recreation area contaminated as a result of the site, or is a recreation area potentially impacted within 15 miles as a result of the site?	<u>X</u>	<u>1</u>	<u>5</u> (5)
6. Is a sensitive environment contaminated as a result of the site, or is a sensitive environment potentially impacted within 15 miles as a result of the site?	<u>X</u>	<u>1</u>	<u>5</u> (5)
7. Complete (a) and (b), and assign the <u>higher</u> factor value:			
(a) If there is documented contamination of a surface water intake with TCL/TAL compounds within 15 miles as a result of the site, answer yes and assign a factor value of 50.	<u> </u>	<u> </u>	<u>0</u> (50)
(b) Calculate potential population and assign a factor value as given below:	<u> </u>	<u> </u>	

No INTAKES

Intake	Population	x	* Dilution Weighting Factor	=	Subtotal
01		x		=	
02		x		=	
03		x		=	
		x		=	
		x		=	
		x		=	

* Use table on following page.

Total 0 x 1 = (50max)
100

SURFACE WATER PATHWAY

TABLE
DILUTION WEIGHTING FACTORS

Surface Characteristic	Average Annual Flow in Cubic Feet per Second (CFS)	Assigned Value
Minimum perennial stream	Less than 5 cfs	2.5
Small to moderate stream	5 to 50 cfs	0.25
Moderate to large stream	Greater than 50 to 500 cfs	0.025
Large streams to rivers	Greater than 500 to 10,000 cfs	0.0013
Major rivers	Greater than 10,000 cfs	0.0003
Ocean or the Great Lakes	Not applicable	0.0003
Mixing zone of quiet flowing rivers	Greater than 50 cfs	0.125
Lakes, reservoirs	Add and average CFS of tributaries flowing into lake/reservoir.	Assign value to calculated CFS figure using above factors.

ON-SITE PATHWAY

- | | Yes
(x) | Reference | Factor
Value |
|---|-------------|-------------|-----------------|
| 1. Is the site located in an area where people live or go to school within 1 mile of the source(s)?
*If answer <u>NO</u> to Question 1, do not proceed with the remaining questions. | <u>X</u> | <u>1</u> | <u>10</u> (10) |
| 2. Is there known contamination from the site on residential or school property? | <u> </u> | <u> </u> | <u>0</u> (15) |
| 3. Is site public use land or widely used land without barriers? | <u> </u> | <u> </u> | <u>0</u> (10) |
| 4. Complete (a), (b) and (c), and assign the highest factor value:
Which of the following are adjacent to site/source(s) or contaminated from the site? | | | |
| (a) Schools, day-care | <u> </u> | <u> </u> | <u>0</u> (15) |
| (b) Parks, playgrounds, residences | <u> </u> | <u> </u> | <u>0</u> (10) |
| (c) National park, federal endangered species, other public-use lands. | <u> </u> | <u> </u> | <u>0</u> (5) |
| 5. Calculate population within 1 mile of the site, and assign factor value as given below: | | | |

Distance (mile)	Population	x	Distance Weighting Factor	=	Subtotal
0-1/4	225	x	0.05	=	11.25
1/4-1/2	279	x	0.025	=	6.98
1/2-1	2186	x	0.0125	=	27.33

Total 46 46 (50max)

TOTAL ON-SITE PATHWAY VALUE 56 (100)

REFERENCE DOCUMENTATION SHEET

[illegible]